



# Howard Corners Intersection Scoping Study

Alternatives Presentation Meeting

June 27, 2017

# Introductions

## Consultant Team:

Corey Mack, PE  
Consultant Project Manager

Roxanne Meuse, EIT  
Consultant Planner and Designer

## Public Works Team:

David Allerton, PE

Susan Molzan

Phillip Peterson

## Steering Committee:

Scott Mapes  
Resident

RJ Lalumiere  
Walk-Bike Council

Nicole Losch  
DPW Ped. and Bike Program Manager

Kara Yelinek  
VTrans Supervisor



# Why We're Here

Burlington was awarded a grant to study the intersection and evaluate alternative designs that can be implemented to **improve safety, meet accessibility standards, and foster an emerging neighborhood.**

An **Intersection Scoping Study** includes:

- Existing Conditions Review
- Local Concerns Meeting (November 11, 2016)
- Alternatives Development and Analysis
- **Alternatives Presentation Meeting (Today)**
- Final Scoping Report
- Final Presentation



# Tonight's Discussion

1. **Introductions and Background** – 10 minutes
2. **Alternatives** – 20 minutes
3. **Table Breakout** – Until they turn the music up... (~60 minutes)
4. **Wrap Up**



# Questions For You

Alternatives Presentation Meeting Feedback

6/27/17

## Winooski Avenue – Howard Street – St. Paul Street Intersection Scoping Study

Email Address (if you would like to receive updates): walkbikewithsp@gmail.com

	A1 – Demonstration Project: <i>Let's do it - I can help!</i>
	A2 – Upgraded Signals and Pedestrian Crossings: <i>I'd love to see this happen!</i>
	A3 – Upgraded Signals, Realigned South Winooski: <i>I love potvin park! Don't touch it!</i>
	A4 – Dual Roundabout, Realigned South Winooski: <i>I feel this sacrifices people space for car space...</i>
	A5 – Modern Roundabout: <i>Don't you dare touch Neighborhood Market!</i>

Instructions with stickers: Place your green star on your preferred ultimate treatment (A2, A3, A4, A5, or Do Nothing). Place your remaining stars on your priority issues (what you would most like to see addressed).

Thank you!

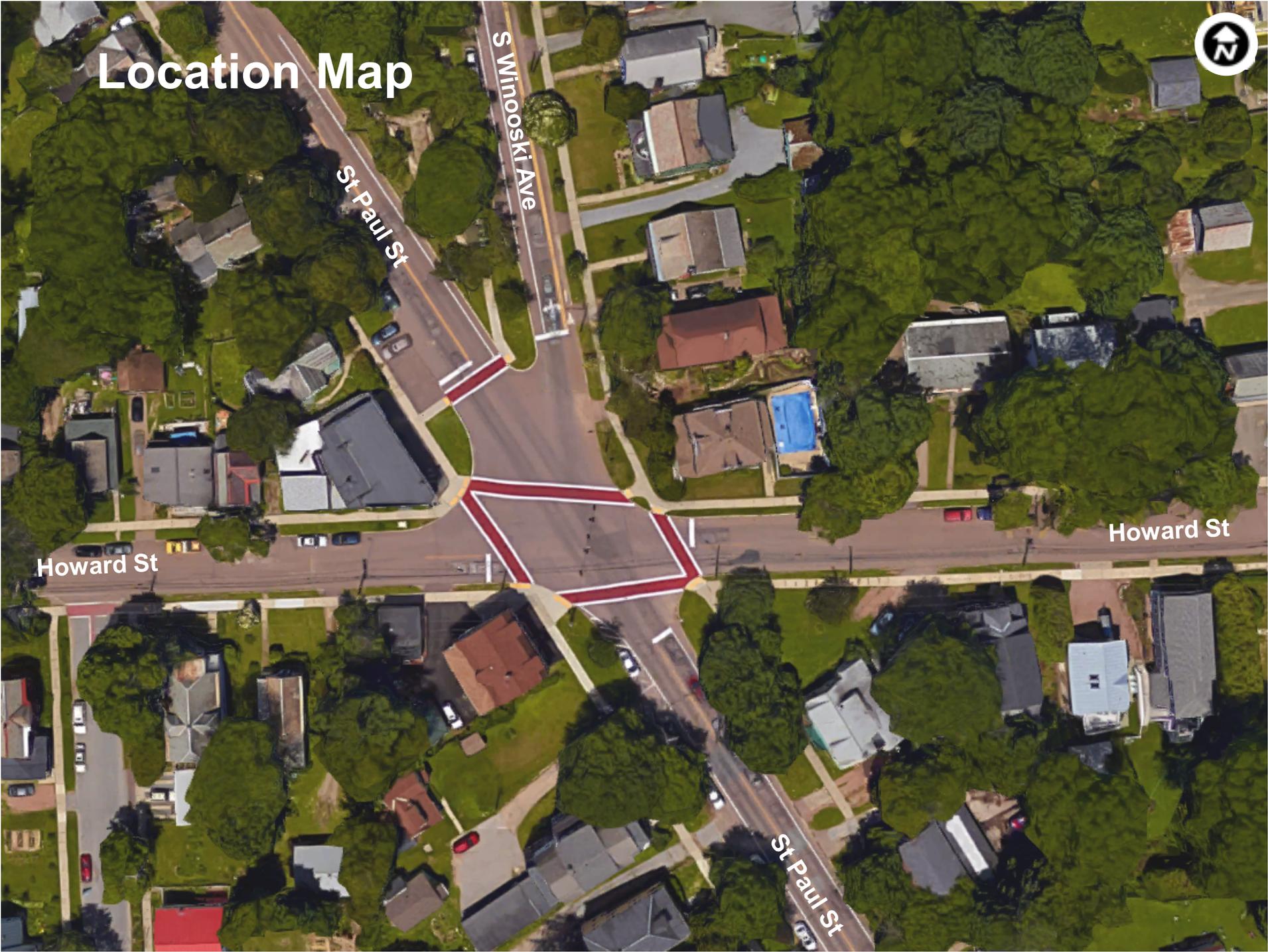
Please fill out comment form – let us know what you think!

Stars:

1. Use the **GREEN** star on your preference for your preferred ultimate intersection design
2. Use the remaining stars to vote on your priority issues



# Location Map



# Local Concerns Meeting – November 12, 2016



# Local Concerns Meeting – November 12, 2016



# What We Learned...



No bus shelter or transit amenities

Potvin Park underutilized

Trucks on S. Winooski Ave. (trucks prohibited)

Underdeveloped pedestrian environment

33 crashes in 5 years

Crosswalks and distance bikes have to travel too long for green time

Observed speeding

Bicycle facilities end abruptly

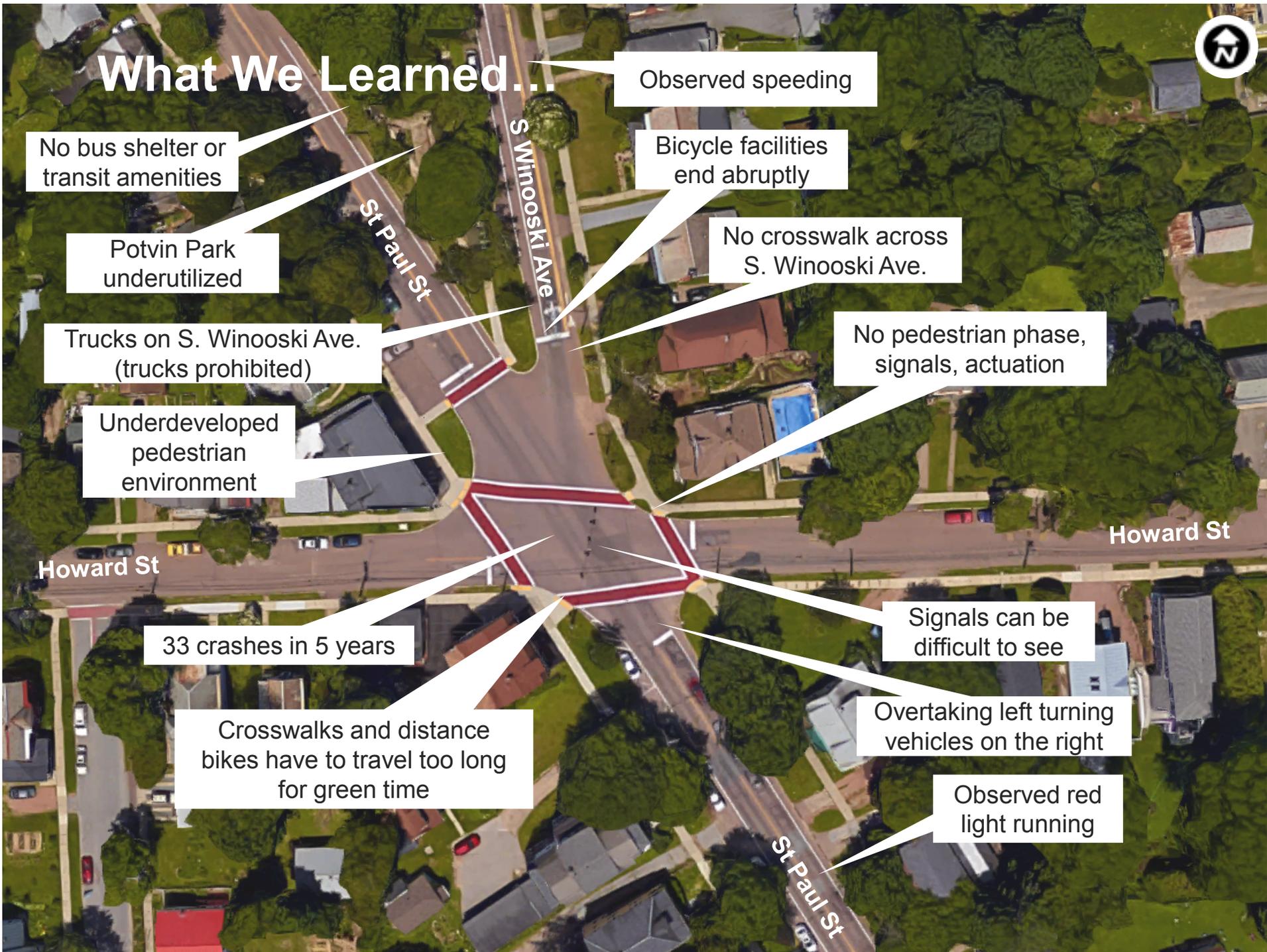
No crosswalk across S. Winooski Ave.

No pedestrian phase, signals, actuation

Signals can be difficult to see

Overtaking left turning vehicles on the right

Observed red light running

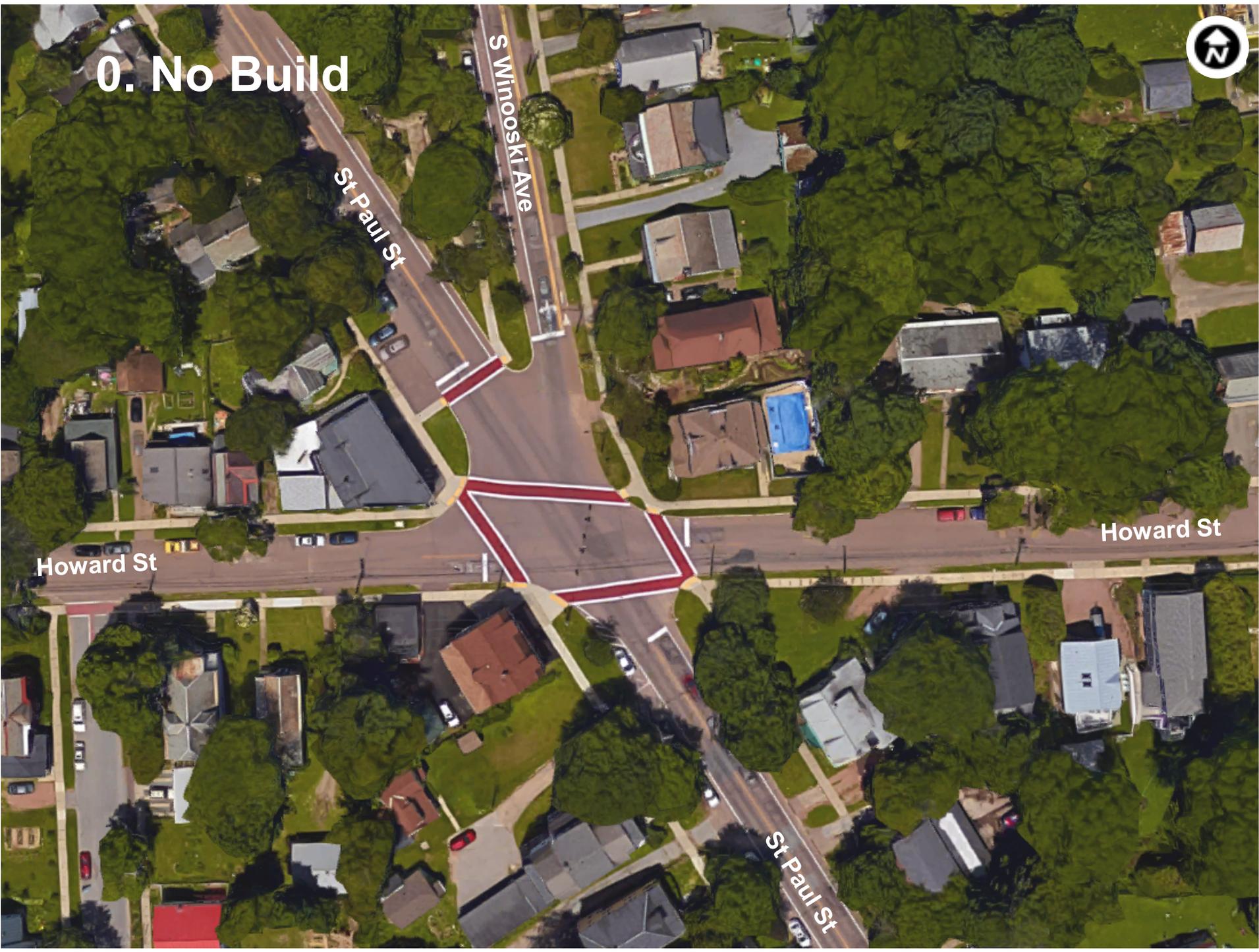


# Alternatives

0. No Build
1. Demonstration Project
2. New Signal System – Existing Geometry
3. New Signal System – Realigned Roadway
4. Dual Roundabout – Realigned Roadway
5. Modern Roundabout



# 0. No Build



S Winooski Ave

St Paul St

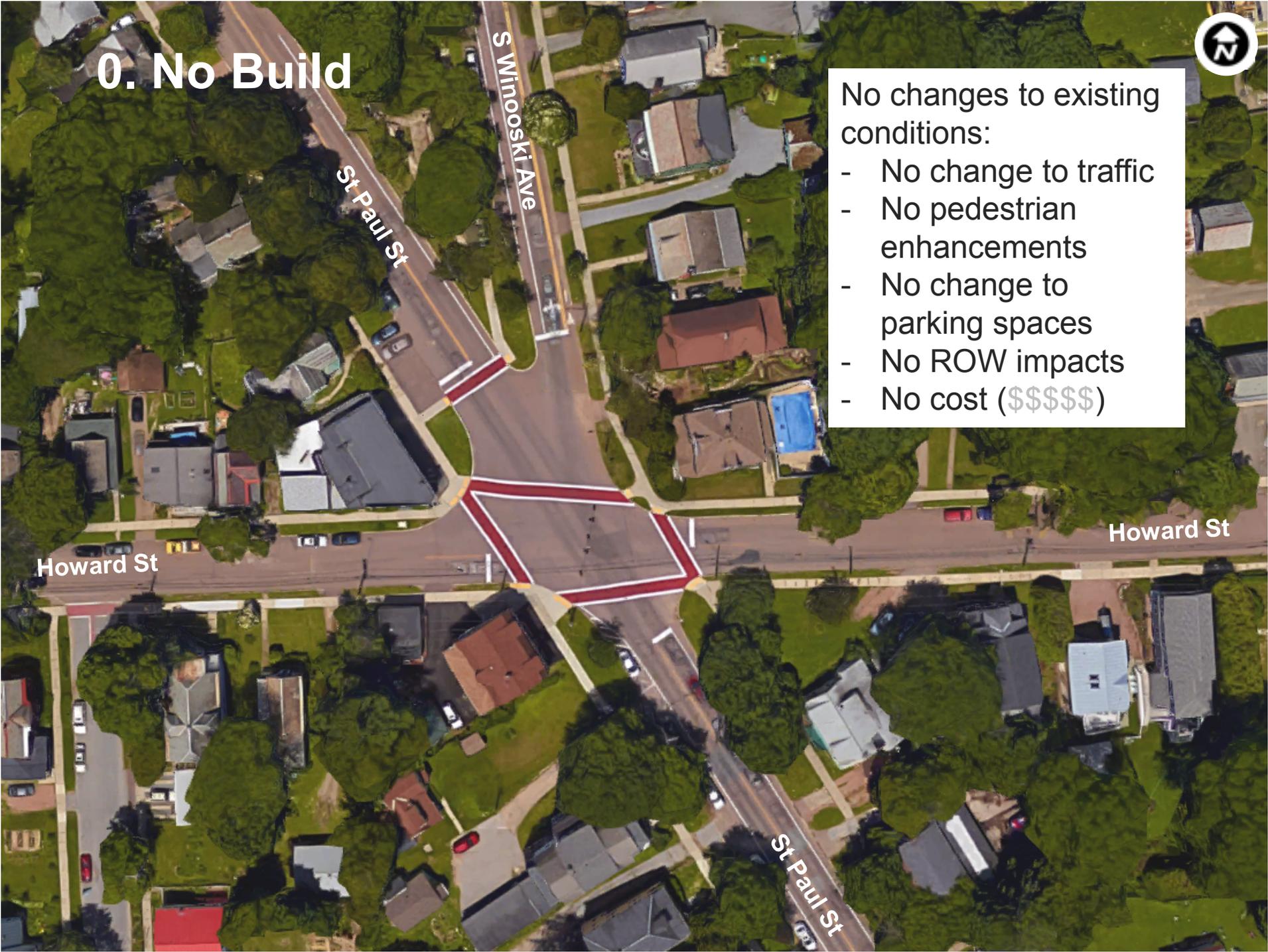
Howard St

Howard St

St Paul St

# 0. No Build

- No changes to existing conditions:
- No change to traffic
  - No pedestrian enhancements
  - No change to parking spaces
  - No ROW impacts
  - No cost (\$\$\$\$\$)



# 1. Demonstration Project



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“NO RIGHT ON RED”

Green bike markings extending bike lane

Howard St

Cones / hay bales to extend pedestrian space (blue area)

S Winoski Ave

St Paul St

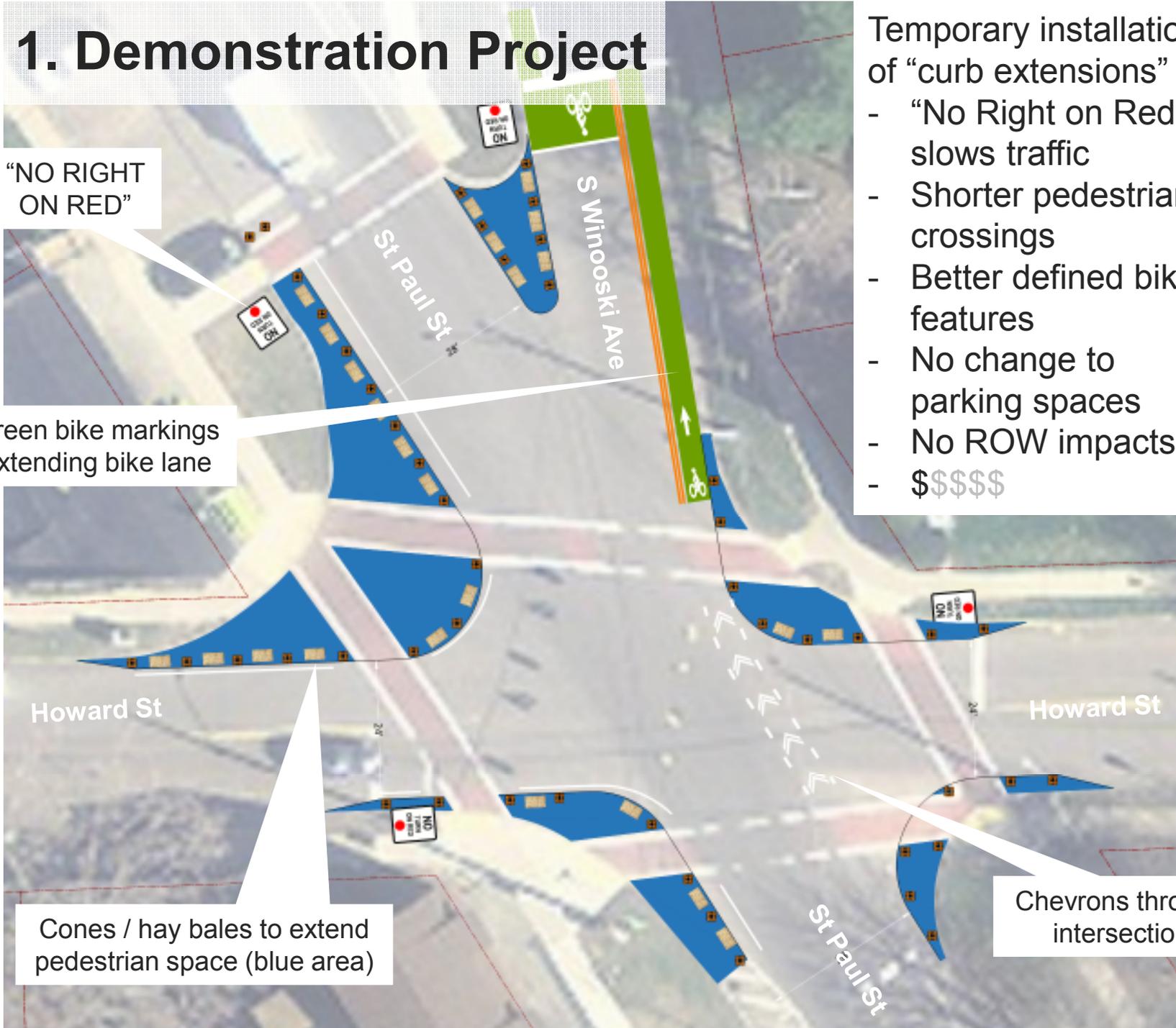
Howard St

St Paul St

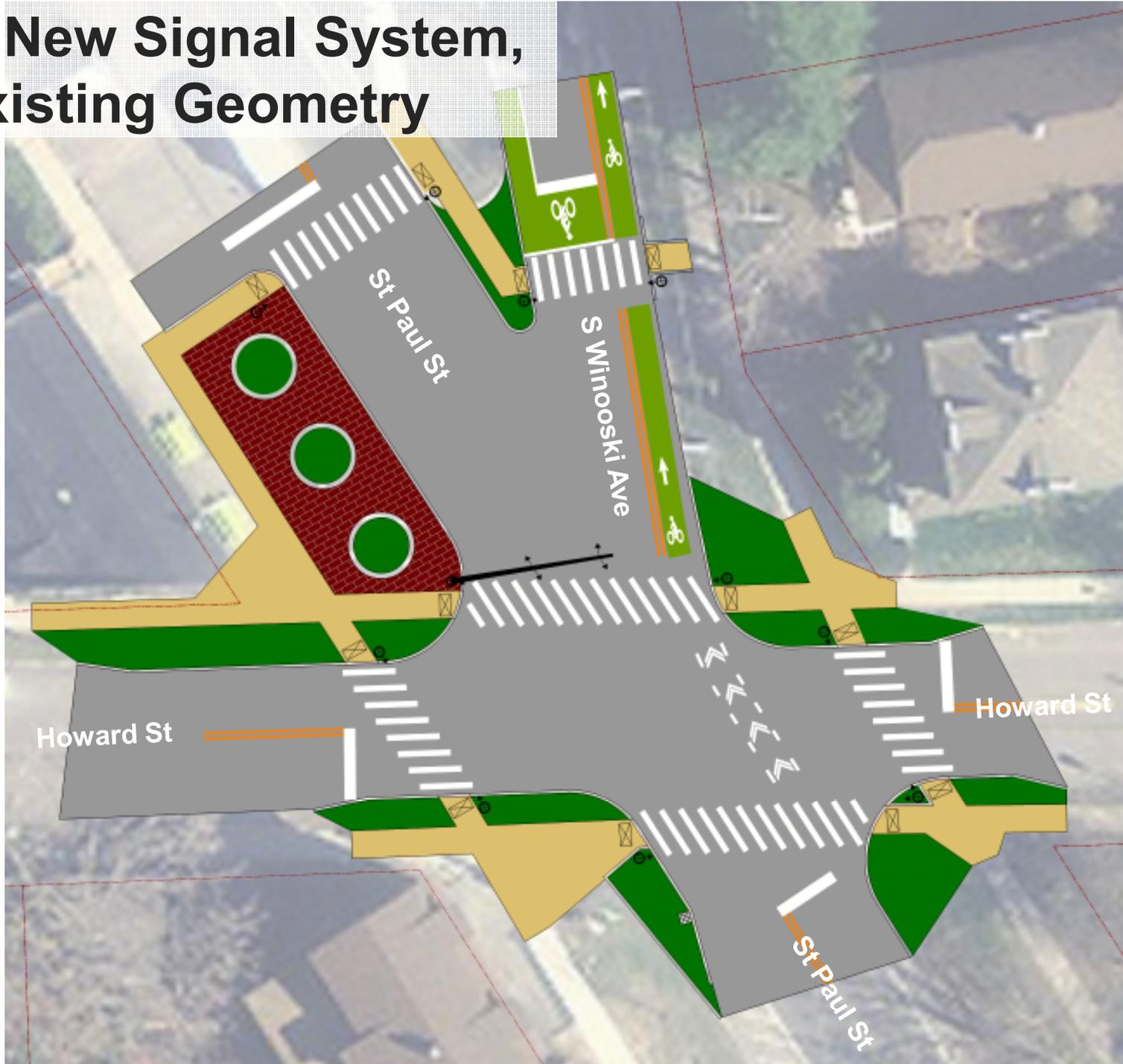
Chevrons through intersection

Temporary installation of “curb extensions”

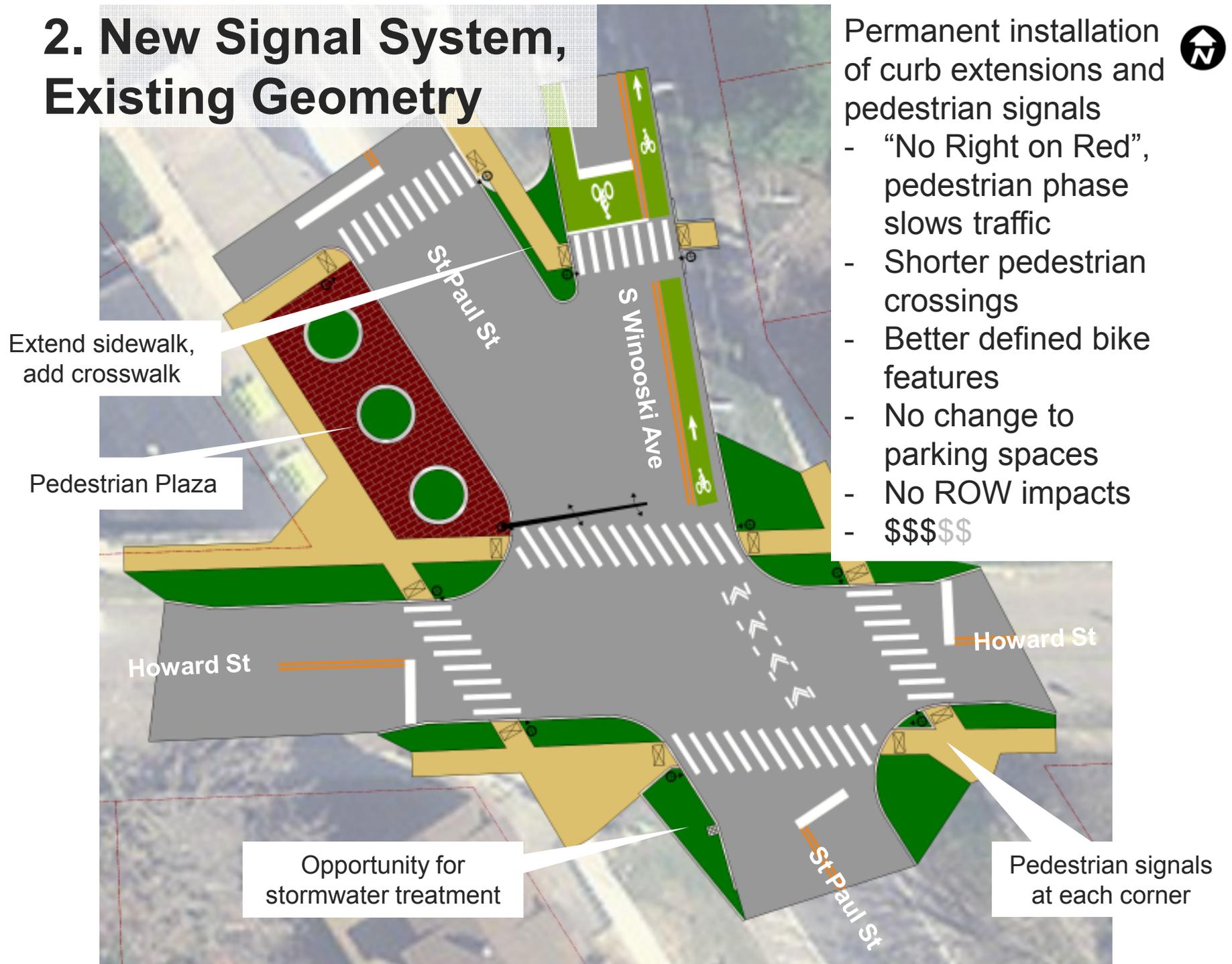
- “No Right on Red” slows traffic
- Shorter pedestrian crossings
- Better defined bike features
- No change to parking spaces
- No ROW impacts
- \$\$\$\$\$



## 2. New Signal System, Existing Geometry



## 2. New Signal System, Existing Geometry



Permanent installation of curb extensions and pedestrian signals

- “No Right on Red”, pedestrian phase slows traffic
- Shorter pedestrian crossings
- Better defined bike features
- No change to parking spaces
- No ROW impacts
- \$\$\$\$\$



### 3. New Signal System, Realigned Roadway



### 3. New Signal System, Realigned Roadway

Realigned S. Winooski Avenue, coordinated traffic signals 

- Coordinated signal system improves traffic
- Shorter pedestrian crossings
- Better defined bike features
- Loss of street parking spaces
- No ROW impacts
- Significant impact to Potvin Park
- \$\$\$\$\$

Loss of street parking

Roadway cuts through Potvin Park, down hill and on corner

Large, green space – possible stormwater treatment

Northbound bicycle slip lane



Howard St

Howard St

St Paul St

# 4. Dual Roundabouts, Realigned Roadway



# 4. Dual Roundabouts, Realigned Roadway



Roadway cuts through Potvin Park, down hill and on corner

Bicycle slip lane

Driveways into roundabout

Loss of 457 St Paul off-street parking

Loss of street parking

Bicycles in circulating lane, no path alternative without ROW impacts

Realigned S. Winooski Avenue, dual mini-roundabouts (70-foot dia.)

- Roundabouts improves traffic operations
- Short pedestrian crossings
- Few bicycle amenities
- Typically slowest speeds and safest
- Loss of street parking; off-street spaces
- No ROW impacts
- Significant impact to Potvin Park
- \$\$\$\$\$



# 5. Modern Roundabout



# 5. Modern Roundabout



100-foot Inscribed Diameter Roundabout 

- Roundabout improves traffic operations
- Short pedestrian crossings
- Few bicycle amenities
- Typically slowest speeds and safest
- Loss of off-street parking spaces
- Large ROW impacts
- \$\$\$\$\$

Driveway into roundabout

Full take of 457 St Paul St

Bicycles in circulating lane, no path alternative without ROW impacts

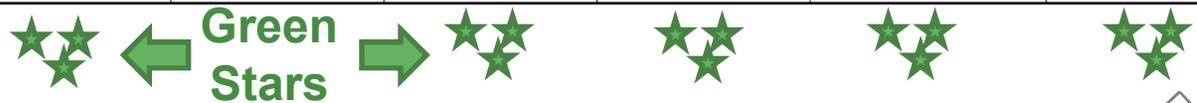
# Comparison Matrix

Issues to Address	Alternatives					
	0 No Build	1 Demonstration Project Existing Geometry	2 New Signal System Existing Geometry	3 Dual Signal System Realigned Roadway	4 Dual Roundabout Realigned Roadway	5 Modern Roundabout Existing Geometry
1 Crossing length for all modes	no change	improvement	improvement	improvement	improvement	improvement
2 Pedestrian crossing guidance	no change	no change	improvement	improvement	improvement	improvement
3 Pedestrian crossing of S. Winooski Ave	no change	no change	improvement	improvement	improvement	improvement
4 Crash rate	no change	no change	improvement	improvement	improvement	improvement
5 Comfortable transit facilities	no change	no change	opportunity	opportunity	opportunity	opportunity
6 Visibility of traffic signals to motorists	no change	no change	improvement	improvement	improvement	improvement
7 Vehicle speeds	no change	improvement	no change	improvement	improvement	improvement
8 Running of red lights	no change	no change	no change	improvement	improvement	improvement
9 Wrong-way driving on S. Winooski Ave	no change	no change	improvement	improvement	improvement	improvement
10 Trucks on S. Winooski Ave	no change	no change	no change	no change	no change	no change
11 Right turns on red	no change	improvement	improvement	improvement	improvement	improvement
12 Use of Potvin Park	no change	no change	improvement	worse	worse	no change
13 Public gathering space	no change	improvement	improvement	improvement	no change	worse
14 Bicycle infrastructure	no change	improvement	improvement	improvement	opportunity	opportunity
15 Stormwater retention	no change	no change	opportunity	opportunity	opportunity	opportunity
16 Support relationship between residents and businesses	no change	improvement	improvement	improvement	no change	worse
<b>Additional key study elements</b>						
Traffic Operations: Level of Service	C	C	E (possible C)	C+C	B+B	B
Traffic Operations: Total Average Queue Length	730 ft	760 ft	1220 ft	1100 ft	690 ft	310 ft
Stormwater Management: Change in Permeable Area	n/a	0 sf	1270 sf	5300 sf	7720 sf	3760 sf
Parking Options: Change in Parking Spaces	n/a	0	0	-7 on-street spaces	-8 on-street, -5 off-street	-1 on-street
Cost: Relative Cost	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$



# Comparison Matrix

Issues to Address	Remaining Stars	Alternatives					
		0 No Build	1 Demonstration Project Existing Geometry	2 New Signal System Existing Geometry	3 Dual Signal System Realigned Roadway	4 Dual Roundabout Realigned Roadway	5 Modern Roundabout Existing Geometry
1 Crossing length for all modes	↓	no change	improvement	improvement	improvement	improvement	improvement
2 Pedestrian crossing guidance		no change	no change	improvement	improvement	improvement	improvement
3 Pedestrian crossing of S. Winooski Ave	★ ★ ★	no change	no change	improvement	improvement	improvement	improvement
4 Crash rate		no change	no change	improvement	improvement	improvement	improvement
5 Comfortable transit facilities	★ ★	no change	no change	opportunity	opportunity	opportunity	opportunity
6 Visibility of traffic signals to motorists	★ ★	no change	no change	improvement	improvement	improvement	improvement
7 Vehicle speeds		no change	improvement	no change	improvement	improvement	improvement
8 Running of red lights	★ ★ ★	no change	no change	no change	improvement	improvement	improvement
9 Wrong-way driving on S. Winooski Ave	★ ★ ★	no change	no change	improvement	improvement	improvement	improvement
10 Trucks on S. Winooski Ave		no change	no change	no change	no change	no change	no change
11 Right turns on red	★	no change	improvement	improvement	improvement	improvement	improvement
12 Use of Potvin Park		no change	no change	improvement	worse	worse	no change
13 Public gathering space	★ ★	no change	improvement	improvement	improvement	no change	worse
14 Bicycle infrastructure		no change	improvement	improvement	improvement	opportunity	opportunity
15 Stormwater retention	★	no change	no change	opportunity	opportunity	opportunity	opportunity
16 Support relationship between residents and businesses		no change	improvement	improvement	improvement	no change	worse
<b>Additional key study elements</b>							
Traffic Operations: Level of Service		C	C	E (possible C)	C+C	B+B	B
Traffic Operations: Total Average Queue Length		730 ft	760 ft	1220 ft	1100 ft	690 ft	310 ft
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Cost: Relative Cost		\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$



# Break Out Groups

Visit the tables and talk to Roxanne and Corey:

- Understand the Alternatives
- Comment on the drawings – feel free to write, draw, or otherwise markup any of the drawings!
- Vote on your preferred treatment

We'll give a 10 minute warning before wrap up



# Wrap-Up

Final thoughts:

- Consensus on preferred treatment?
- Interim Improvements? (Such as build the sidewalk and South Winooski Crosswalk, now)
- Schedule
- Implementation of Preferred Alternative
- Funding Sources

**THANK YOU!**





## Contacts

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